

GreenPower

News

A weekly update from Western's Renewable Resources Program covering green power, reports and studies and funding.

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Green Power

Green Power Partnership Top Lists are Expanding

This fall, EPA's Green Power Partnership (GPP) will be expanding several of the Top Partner Rankings when it releases the next quarterly update on October 21.

As you know, each quarter, GPP tracks and recognizes the leading organizations using the most green power in several national and sector-focused [Top Partner Rankings](#). Expanding these rankings will help

further recognize leading organizations committed to using green power and reflect recent growth within the Partnership—the GPP now includes more than 1,500 organizations that are collectively using more than 28 billion kilowatt-hours of green power annually. It also means your clients will have a greater opportunity to be recognized as a leading Partner.

We encourage you to let your clients know about this opportunity and work with them to enroll in the Partnership or report new green power use information to EPA. EPA must receive all green power use data by September 19. We encourage you to be sure your clients' green power usage information is up to date.

If your clients are interested in joining, they can visit the [GPP website](#) to learn more about the [benefits of joining](#) and the program's [green power purchase requirements](#). *Source: EPA Green Power Partnership, 8/19/13*

Intel No. 1 on EPA's green power list

Intel's green power purchases reached 100 percent of its projected electricity use for the year and the company remained atop the Environmental Protection Agency's Green Power Partnership list for the fifth consecutive year.

Last year, green power accounted for 88 percent of the company's total electricity use.

Marty Sedler, director of global utilities and infrastructure at Intel, said the company's portfolio of renewable technology sources includes wind, solar, biomass, geothermal and low-impact hydro. Intel has built 16 solar facilities across its campuses in the United States, he said. [Read more](#). *Source: Phoenix Business Journal, 8/12/13*

Geothermal interest heats up in Modoc County

Modoc County's geothermal potential has been known for centuries but, aside from some commercial applications in Canby and Surprise Valley, little realized.

Researchers with the University of California Davis' California Geothermal Energy Collaborative and geology department want to learn more about how the county's nascent geothermal energy can be used.

"That whole area has been known as having geothermal resources for a long, long time," said William Glassley, executive director of the California Geothermal Energy Collaborative, noting early American Indians were aware of and used hot springs, especially in Surprise Valley. "It's clear it's a very active area." [Read more](#). *Source: Klamath Falls Herald and News, 8/8/13*

Senate passes hydropower development act

U.S. Senators Jim Risch (R-ID) and John Barrasso (R-WY) on Friday praised the Senate's unanimous passage of the "Bureau of Reclamation Small Conduit Hydropower Development and Rural Jobs Act."

The bill, which already passed the House of Representatives this past April, authorizes the Bureau of Reclamation hydropower development on nearly 47,000 miles of federal canals throughout the West. This will help create jobs in rural communities across the country and provide America with a cheap and clean source of electricity. [Read more](#). *Source: newsbf.com, 8/4/13*

Tax incentives, rebates fuel interest in geothermal energy

Geothermal heating and cooling may be the most under-utilized type of energy available for residential and commercial buildings, but it is gaining ground fast.

The startup cost may be more, but in the long run, experts say, it all pays off.

A study by the U.S. Environmental Protection Agency showed that geothermal systems have the lowest life-cycle cost of all heating and cooling systems currently on the market. Lower maintenance costs and longer life expectancy of geothermal units should certainly be taken into consideration when determining true savings. [Read more](#). Source: *Sioux City Journal*, 7/31/13

A renewed push for hydropower

Updating hydroelectric power's permitting process could result in a 15 percent boost in U.S. generation.

For years, hydroelectric power development has languished under the burden of stereotype: Its potential is tapped out. It's detrimental to the environment. It's not "real" renewable energy.

But legislation pending in Congress that could streamline the permitting process — without loosening environmental protections — might further unleash the power of this important energy source.

The measure has united Democrats and Republicans, environmentalists and utility representatives.

"Hydro is back," U.S. Sen. Ron Wyden, D-Oregon, has exclaimed on more than one occasion. [Read more](#). Source: *The Denver Post*, 7/29/13

Letter: Polls show strong support for wind

Editor Rex Smith's column ("Uneasiness as renewable energy grows," July 20) on wind power and other renewables overlooks the facts when it comes to costs, public support and wind power's overall practicality.

Polls show quite the opposite of what Mr. Smith claims; there's strong public support for wind power. A recent Gallup poll shows 71 percent of Americans want more wind power developed and a Washington Post poll shows a majority of Marylanders support the development of offshore wind power there.

Adding both onshore and offshore wind power will help reduce energy prices, as the electricity it generates will displace the most expensive, least efficient power plants first. For example, a power system analysis of the Midwest, Texas, Mid-Atlantic and New York by independent utility systems experts using standard power modeling methods shows that market prices with wind have been significantly lower than if wind had not entered the market. [Read more](#). Source: *Albany Times Union*, 7/29/13

Fracking Could Help Geothermal Become a Power Player

Why isn't there more use of geothermal energy for power plants?

Here's another use for fracking: expanding access to hot rocks deep beneath Earth's surface for energy production. In April Ormat Technologies hooked up the first such project—known in the lingo as an enhanced geothermal system, or EGS—to the nation's electric grid near Reno, Nev.

"The big prize is EGS," enthuses Douglas Hollett, director of the Geothermal Technologies Office at the U.S. Department of Energy (DoE). "The key is learning how to do it in a reliable way, in a responsible way." [Read more](#). Source: *Scientific American*, 7/29/13

Visit **U.S. DOE EERE [Green Power Network](#)** for more information.

Reports, studies and policy

Installed price trends for US photovoltaic systems subject of new report

Lawrence Berkeley National Laboratory has released a new report, [Tracking the Sun VI: An Historical Summary of the Installed Price of Photovoltaics in the United States from 1998 to 2012](#).

This latest edition in Berkeley Lab's Tracking the Sun series, provides a comprehensive summary of installed price trends for photovoltaic (PV) systems installed in the United States from 1998 through 2012, along with preliminary price trends for systems installed in 2013.

Based on project-level data from more than 200,000 residential, commercial and utility-scale PV systems, the report describes and analyzes installed price trends across various dimensions, including:

- Total installed price over time
- Comparisons to other major international PV markets
- Differences in installed price by system size and across states
- Differences in installed price by customer type, application, and technology

The full report, a presentation slide deck that summarizes the report, and an Excel workbook that contains many of the results presented in the report, can all be downloaded for free. Source: *Lawrence Berkeley National Laboratory*, 8/12/13

Solar Action Webinar Series

The Solar Action Webinar Series provides an overview of best practices developed by Rooftop Solar Challenge I teams from across the country. The 2013 series includes webinars on financing, zoning, net metering, interconnection, and inspection among other topics. The webinars were organized by the U.S. Department of Energy (DOE) Solar Office in coordination with the Solar Outreach Partnership.

Presentations from past webinars are available online:

- June 14, 2013: Innovation and Success in Organizing and Strategizing a Local Solar Effort
- June 26, 2013: Innovation and Success in Solar Permitting and Inspections
- July 10, 2013: Innovation and Success in Solar Financing
- July 24, 2013: Innovation and Success in Planning and Zoning
- August 7, 2013: Innovation and Success in Solar Net Metering and Interconnection

If you missed a presentation or would like to refer back to one of the presentations above, the files are available on the [SunShot website](#). Source: *DOE EERE Sunshot Initiative*, 8/9/13

New Study Finds that the Price of Wind Energy in the United States Is Near an All-Time Low

The U.S. Department of Energy recently released [2012 Wind Technologies Market Report](#), which provides a comprehensive overview of trends in the U.S. wind power market, with a particular focus on 2012. Drawing from a variety of data sources, this report covers a broad range of topics, including:

Wind project installation trends

- Wind industry developments
- Domestic and imported content of wind turbines
- Wind turbine prices and installed wind project costs
- Operations and maintenance cost trends
- Wind project performance trends
- Wind power purchase agreement prices
- Comparing the price of wind energy to wholesale electricity prices
- Integration, transmission, and policy developments
- Future outlook for the sector

The full report, a presentation slide deck that summarizes the report, and an Excel workbook that contains much of the data presented in the report, can all be downloaded. *Source: Lawrence Berkeley National Laboratory, 8/6/13*

Energy Dept. Reports: U.S. Wind Energy Production and Manufacturing Reaches Record Highs

The Energy Department released two new reports today showcasing record growth across the U.S. wind market—increasing America’s share of clean, renewable energy and supporting tens of thousands of jobs nationwide. According to these reports, the United States continues to be one of the world’s largest and fastest growing wind markets. In 2012, wind energy became the number one source of new U.S. electricity generation capacity for the first time—representing 43 percent of all new electric additions and accounting for \$25 billion in U.S. investment.

In the first four years of the Obama Administration, American electricity generation from wind and solar power more than doubled. President Obama’s Climate Action Plan makes clear that the growth of clean, renewable wind energy remains a critical part of an all-of-the-above energy strategy that reduces harmful greenhouse gas emissions, diversifies our energy economy and brings innovative technologies on line. The Obama Administration has committed to another doubling of the renewable electricity generation from energy resources like wind power by 2020. [Read more](#). *Source: DOE Office of Energy Efficiency and Renewable Energy, 8/6/13*

Geothermal Energy Weekly available online

The Geothermal Energy Association rounds up the latest developments in the geothermal industry in its [weekly newsletter](#). Find out what's happening in:

- National news
- GEA member companies
- State news
- International news
- Industry & applications
- Community Notice Board

Source: *Geothermal Energy Association*, 8/1/13

Environment America names 'Dazzling Dozen' solar states

A dozen states that account for about 28 percent of the United States population, have about 85 percent of the country's installed solar photovoltaic capacity.

The Environment America Research & Policy Center released a report this week naming the "Dazzling Dozen" states that are leading the way in solar energy policy for the country and providing examples of how other states can fall in line to help the country get 10 percent of its electricity from the sun by 2030.

The 12 states blazing a trail for solar policy are Arizona, California, Colorado, Delaware, Hawaii, Maryland, Massachusetts, Nevada, New Jersey, New Mexico, North Carolina and Vermont. [Read more](#).
Source: *CleanEnergy Authority*, 8/1/13

For Solar Educators & Trainers: Photovoltaic Labs Best Practices Document Latest in Series

Photovoltaic Labs Best Practices, the latest in a unique Solar Energy Education and Training Best Practices series, was released today by the Interstate Renewable Energy Council, Inc. (IREC) and the Solar Instructor Training Network (SITN).

"These documents give educators the right tools to develop and implement quality training programs and prepare students with indispensable skills to enter the solar workforce," said Joe Sarubbi, SITN program manager.

This seventh document in the series is designed to assist faculty and administrators at colleges, universities and other technical training institutions who are interested in developing new photovoltaic (PV) laboratories or improving existing ones. Lead authors include these well-respected solar educators and trainers: Brian Hurd, Hands on Solar; Christopher LaForge, Great Northern Solar; and Dr. Jerry Ventre, former director, Photovoltaics and Distributed Generation Division, Florida Solar Energy Center. [Read more](#). Source: *Interstate Renewable Energy Council*, 7/31/13

U.S. hits renewable energy record in 2012

With the government approval of fracking in many states, along with steady growth in wind and solar energy, 2012 saw the highest rate of alternative energy sources in the United States.

Renewable energy production hit an all-time high in the United States in 2012, according to a recent annual energy report.

A combination of government incentives and technological innovations has helped solar and wind power grow in the United States in recent years, the report suggests. From 2011 to 2012, solar energy production increased by 49 percent and wind energy increased by 16 percent, according to a Lawrence Livermore National Laboratory annual energy analysis published earlier this month. [Read more](#). Source: *Mother Nature Network*, 7/30/13

NREL study looks at solar land use requirements

[Land-Use Requirements for Solar Power Plants in the United States](#) provides data and analysis of the land use associated with utility-scale ground-mounted solar facilities, defined as installations greater than 1 megawatt. We begin by discussing standard land-use metrics as established in the life-cycle assessment literature and then discuss their applicability to solar power plants. We present total and direct land-use results for various solar technologies and system configurations, on both a capacity

and an electricity-generation basis. The total area corresponds to all land enclosed by the site boundary. The direct area comprises land directly occupied by solar arrays, access roads, substations, service buildings, and other infrastructure. As of the third quarter of 2012, the solar projects we analyze represent 72 percent of installed and under-construction utility-scale PV and CSP capacity in the United States. *Source: National Renewable Energy Laboratory, 7/30/13*

National Report on Solar Installation Trends Offers Insight and Analysis

The drivers of the booming U.S. solar installation market are addressed in a nationally recognized annual report on solar installation trends released today by the Interstate Renewable Energy Council (IREC).

The solar market is an increasingly important and vital part of the American economy. What are the trends in this market, and what forces are at work? Which sectors of the market are strongest, and why? What are the prospects for solar energy in the near future?

The report answers these questions by compiling and analyzing public data on U.S. solar installations by technology, state and solar market sectors. It offers insight on the major factors affecting the solar market, such as photovoltaic prices, strong consumer demand, available financing, renewable portfolio standards in some states, and financial incentives from the federal government, states and utilities. [Read more](#). *Source: Interstate Renewable Energy Council, 7/30/13*

SunShot Solar Power Reduces Costs and Uncertainty in Future Low-Carbon Electricity Systems

The United States Department of Energy's SunShot Initiative has set cost-reduction targets of \$1/watt for central-station solar technologies. We use SWITCH, a high-resolution electricity system planning model, to study the implications of achieving these targets for technology deployment and electricity costs in western North America, focusing on scenarios limiting carbon emissions to 80 percent below 1990 levels by 2050. We find that achieving the SunShot target for solar photovoltaics would allow this technology to provide more than a third of electric power in the region, displacing natural gas in the medium term and reducing the need for nuclear and carbon capture and sequestration (CCS) technologies, which face technological and cost uncertainties, by 2050. [Read more](#). *Source: ACS Publications, 7/19/13*

Find more [publications and webinars](#).

Funding

About the Loan Programs Office

An Emerging Sector in Need of Support

Restoring the United States to a position of global leadership in clean energy is a critical national priority, with implications for our economic competitiveness, national security, and environmental legacy. This goal can only be achieved through widespread and large-scale deployment of new and innovative clean energy technologies—an undertaking that will require massive, sustained investment by the private sector.

Yet, to date, the private sector has not invested in clean energy at the scale needed to meet our national goals. Part of this shortfall can be attributed to the recent domestic financial crisis and global economic downturn. But much of it is due to the unique features of large-scale energy projects, which

make traditional financing difficult to find—even in flush economic times. [Read more](#). *Source: Department of Energy, 8/13/13*

Find more [funding sources](#).

Western Area Power Administration, 12155 W. Alameda Parkway, Lakewood, Colorado, 80228-8213,